

ARNOLD ARBORETUM

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Hybrid Rhododendrons. It is to the hybrids and not to the species of Rhododendrons that our gardens are most indebted. The history of many of these hybrids is obscure, and the records of their breeding have been so badly kept that it seems practically impossible to obtain the information about them needed to continue intelligently the breeding of Rhododendrons with the view of obtaining hardier races for New England gardens. The plants which have been imported from Europe in the last seventy years in numbers running up into the hundreds of thousands are practically all the so-called Catawbiense Hybrids. These hybrids were obtained in the first place apparently by crossing *Rhododendron catawbiense* with *R. ponticum*, a Caucasian species not hardy here, and with *R. maximum*. Later the red-flowered Himalayan *R. arboreum* was crossed either with *R. catawbiense* directly or with its hybrids. Probably other Indian species were used in these crosses, which appear further to have been more or less crossed among themselves. Several hundreds of these hybrids have received names, but only a comparatively small number have proved hardy in this country, those in which *R. catawbiense* and *R. maximum* preponderate being naturally the hardiest, although a few of the hybrids with red flowers showing the influence of *R. arboreum* are hardy here.

Some of the Rhododendrons which have proved hardy here are evidently hybrids of the pale yellow-flowered *Rhododendron caucasicum*, a shrub which grows at high altitudes on the mountains of the Caucasus and of Asia Minor. These hybrids, or those of them which have been successfully grown in the Arboretum, are low shrubs with compact clusters of pink, white or red flowers which open from two to three

weeks earlier than those of the Catawbiense Hybrids. There is much confusion in regard to the history of many of these plants and their breeding. The most satisfactory of them here is called Boule de Neige. Judging by the name, it was raised in France or Belgium. Only the name appears in the most elaborate work on Rhododendrons which has been published, and nothing now appears to be known about its breeding. Boule de Neige has white flowers faintly tinged with pink when they first open and is one of the best Rhododendrons which can be planted in New England. The Arboretum will be glad of information about its history. Other good plants here of the Caucasian race are Mont Blanc, with deep rose-colored flower-buds and expanding flowers which soon become pure white. This is a taller and not as wide-spreading a plant as Boule de Neige. Sultana and Cassiope are dwarf white-flowered plants of less vigorous growth and dwarfer habit than Mont Blanc. A plant of *R. coriaceum*, not rare in English nurseries, has been in the Arboretum for many years, and although it flowers a week or two later than the plants already mentioned it appears to be of Caucasian blood. *R. venosum* with bright rose-colored flowers, usually found in nurseries under the erroneous name of *R. Jacksonii*, is a hybrid of *R. caucasicum* and *R. arboreum* raised in England in 1829. It is highly thought of in England, where it has been much planted, but in the Arboretum is less hardy than the other Caucasian hybrids. A plant which has been growing in Mr. Hunnewell's garden at Wellesley for at least fifty years is evidently a hybrid of *R. caucasicum*. The original specimens were imported from England and are now round-topped bushes about six feet high. For at least thirty years they have never suffered from heat or cold, and have never failed to flower freely. The leaves show the influence of *R. catawbiense*, but the size of the flower-clusters point to *R. caucasicum*. The early flowers, for this is one of the earliest of the hardy Rhododendrons to bloom in this climate, show also the caucasicum influence. Whatever its name or parentage this is a valuable plant, for it is certainly one of the hardiest hybrid Rhododendrons which have been planted in this country. In the Arboretum collection there are only small specimens.

In England several hybrids of *Rhododendron Smirnowii* have been raised. Some of these which originated at Kew have been tried in the Arboretum but without much success. Of more promise are a number of plants raised at Holm Lea by Charles Sander by crossing *R. Smirnowii* with a Catawbiense Hybrid. They have now flowered in the open ground for several years and appear perfectly hardy. The flowers are large, in large compact clusters and vary from clear pink to deep rose color. The leaves are longer than those of either parent, but are without a trace of the felt which covers the lower side of the leaves of *R. Smirnowii*. We have here perhaps an early-flowering race which may add greatly to the possibilities of Rhododendron cultivation in this country.

By crossing *Rhododendron Fortunei* from southern China with some of the Indian species some of the handsomest of all Rhododendrons have been obtained in English gardens. These are not hardy in this climate, but hybrids of *R. Fortunei*, crossed probably with hybrid Cataw-

biense forms imported several years ago from Edinburgh and later from Paul of Cheshunt, England, have proved hardy and should receive more attention than they have in this country. In their slightly fragrant flowers with an often six- or seven-lobed corolla they show the Fortunei influence and in the size and color of the flowers resemble the well known *R. Pink Pearl* which is not hardy here.

A hybrid to which the name *R. Holmleanum* will be given raised by Charles Sander at Holm Lea by crossing the Chinese *R. discolor*, which is closely related to *R. Fortunei*, with a Catawbiense Hybrid has flowered under glass for two years and will flower this year in the open ground in the Arboretum where it has not been injured by the past mild winter. This hybrid has pale pink flowers in large compact trusses, and if it does not prove permanently hardy here it will be a useful plant for the conservatory. At least three hardy dwarf Rhododendrons were obtained many years ago in England by crossing the European species with the dwarf species of the southern Appalachian Mountains. The handsomest of them is perhaps *Rhododendron myrtifolium*, the hybrid between *R. minus* and *R. hirsutum*, a dwarf compact plant which is covered every year in June with small clusters of pale rose-colored flowers. The hybrid between *R. ferrugineum* and *R. minus* has recently been distinguished as *R. laetevirens*, the name *Wilsonii* under which it has been grown in English nurseries properly belonging to another plant. The third of these hybrids, *R. arbutifolium*, is believed to be the result of crossing *R. carolinianum* with *R. ferrugineum*. The American parents are handsomer plants and better worth a place in the garden than these hybrids which have suffered from the influence of the European species. There are in the Arboretum collection several plants of a hybrid between *R. Metternichii* and a hybrid Catawbiense raised by Anthony Waterer at Knap Hill. These plants have large, dark green leaves which are larger than those of *R. catawbiense* and of many of its hybrids, and flowers which vary on different individuals from pink to rose color. The plants are hardy and vigorous, but the flowers are not superior to those of some of the hardy forms of the Catawbiense Hybrids. *R. Metternichii*, which is a native of mountain slopes in central Japan, has flowered in one Massachusetts garden but has proved difficult to grow in the Arboretum.

Sorbus Folgneri. Plants of the group of *Sorbus* with simple leaves have not been particularly successful in the Arboretum, especially the European species. There is not a specimen of the European White Beam (*Sorbus Aria*) in the collection and of the many varieties there is only the variety *Decaisneana* with larger leaves which has been growing here since 1883, the original plant having been replaced several times by plants propagated from it. There is a large and healthy specimen of the English Service tree (*Sorbus domestica*) near the Forest Hills entrance but it has never flowered. Of *Sorbus intermedia* of central Europe there is a large specimen in the mixed plantation near the summit of Peter's Hill. The section of the genus *Sorbus* differing from the White Beam in its smaller flowers and fruits, to which the name *Micromeles* has been given, is represented in the Arboretum by *Sorbus alnifolia*, a widely distributed tree

in eastern Asia which was raised here in 1893, and seems perfectly at home in the Arboretum where it has grown to be thirty feet high and forms a shapely pyramidal head densely clothed in dark green leaves which turn orange and red in the autumn; the white flowers are produced in many-flowered clusters and are followed by small red or red and yellow fruits. This is one of the most successful of the deciduous-leaved trees introduced into the Arboretum from Japan. There is a specimen close to the Wisteria trellis on the right hand side of the Forest Hills Road, and a larger one in the mixed plantation near the summit of Peter's Hill. Handsomer is *Sorbus Folgeneri*, one of Wilson's introductions from western China which is now in flower in the collection of Chinese trees on the southern slope of Bussey Hill. It is a tree which Wilson saw in China sixty feet high with a trunk girth of twelve feet. The leaves, which taper to the ends, are green and lustrous above and covered below with white tomentum which is also found on the young branches. The flowers in lax clusters are white and from a quarter to a half of an inch across, and are followed by egg-shaped, bright red fruit about half an inch long. In the Arboretum *Sorbus Folgeneri* is now only about twelve feet high, with gracefully spreading and arching branches and a clean stem only a few inches in diameter. Although *Sorbus Aria* is not in the Arboretum, the interesting hybrid of that tree and the North American *Aronia arbutifolia* is established in the Shrub Collection where it is named *Sorbaronia altina*; it is also known as *Sorbus alpina* and is a plant of more interest to botanists than to gardeners.

Deutzia hypoglauca. Many of the Deutzias recently introduced from western China give little promise of value in this climate, and some of the handsomest of these plants, like *D. longifolia*, *D. Vilmorinae* and *D. discolor*, are usually killed to the ground every year in the Arboretum. The specimen, however, found by Purdom in northern China to which the name *hypoglauca* has been given has been growing and flowering here for several years and is a good addition to the short list of the entirely hardy species and hybrids of Deutzia which are suitable for New England gardens. Another north China species *D. grandiflora*, is also hardy here. It is a dwarf shrub with larger flowers than those of other Deutzias. Unlike those of other species they are solitary or in two- or three-flowered clusters, and open as the leaves unfold and before the flowers of other Deutzias appear. More satisfactory, however, for New England gardens than any of the species of Deutzia are plants of the Lemoinei hybrids raised by Lemoine at Nancy by crossing *D. gracilis* and *D. parviflora*, another north China plant. The original hybrid is a vigorous shrub often four or five feet tall and broad. It never fails to cover itself every May with pure white flowers, and, like all the Lemoinei hybrid Deutzias, is easily increased by cuttings. There are several compact forms of this hybrid in the collection. Of these the most beautiful perhaps is called *Boule e Neige*. Not quite as hardy is Lemoine's hybrid called *D. rosea*, obtained by crossing *D. gracilis* with the Chinese *D. purpurea*. There are several named varieties of this hybrid; they are small compact plants with white flowers more or less tinged with rose.